

SPECIFICATION AMENDMENTS

Replace the paragraph beginning at page 1, line 22 with:

Thereafter the resist film is developed ~~for~~ by removing either the latent image portion or a portion other than the latent image portion. Thus, the pattern of the X-ray absorber portion of the membrane mask is transferred to the resist film.

Replace the paragraph beginning at page 5, line 33 with:

When X-ray absorbers 2 constituted of a single substance are employed as in the prior art, the phase shift quantity ϕ_{abs} and the mask contrast MC are ~~univocally~~ unequivocally decided. Therefore, the mask contrast MC does not necessarily satisfy the condition $2a = 1/\text{MC}$.

Replace the paragraph beginning at page 7, line 26 with:

Fig. 2 is a graph showing the relation between the transmittance of an X-ray mask and optical image contrast with reference to a geometric phase difference of $\pi/2$ and a phase shift quantity of $-\pi/2$;

Replace the paragraph beginning at page 7, line 31 with:

Fig. 4 is a graph showing the relation between an exposure wavelength of X-rays and a transmittance of X-rays with reference to an X-ray absorber, consisting of tungsten, and having a phase shift quantity of $-\pi/2$;

Replace the paragraph beginning at page 8, line 1 with:

Fig. 5 is a graph showing the relation between the thickness of a diamond films forming an X-ray transmitter and optical image contrast in an X-ray mask according to a comparative example;